

REGION 6 LEPC Update



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This LEPC Update will focus on the usefulness of Poison Control Centers during a hazardous materials incident.

These Centers can provide the LEPC and local response officials with a wealth of assistance in dealing with citizen calls during an event.

Special thanks to Alicia Toombs, University of North Texas student, for her research and assistance in developing this information.

Remember, if your community is interested in CAMEO training, contact Angie at her email: angie.rothen@westonsolutions.com

Steve

History of Poison Control Centers (PCCs)

After World War II, a rapid growth in drugs and chemicals in the marketplace led to drastic increase in suicide and childhood poisonings from these agents.

During this period, approximately half of all accidents in children were poisonings with a substantial number of fatalities. These events led to the development of a response to both unintentional and intentional poisonings.



Europe responded in the late 1940s by establishing special toxicology wards, initially in Copenhagen and Budapest. Around the same time, the Netherlands began a poison information service.

The first poison information center was opened in Chicago in 1953. Within 4 years, there were 17 poison control centers in the US, with the Chicago center serving as a model. These 17 centers dealt mainly with physician enquiries by giving ingredient and toxicity information about products, along with treatment recommendations.

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Gradually, more calls from the public began to reach these centers, as citizens recognized the value of the information given out by the centers. The majority of poison centers were not part of a patient treatment facility; they strictly provided information.

In the 1960s and 1970s a dramatic increase in the number of centers appeared, and by 1978 there were 661 centers in the United States. During the 1980s and 1990s, many of the centers closed or merged with other centers, reducing significantly the number of centers. Today there are 61 centres operating.

American Association of Poison Control Centers



In 1958 the American Association of Poison Control Centers (AAPCC) was founded to promote cooperation and coordination between poison centers in different cities and to standardize the operation of these centers.

An additional part of the AAPCC's activities was poison prevention and education programs for both physicians and the general public.

By coordinating the only nationwide data collection system for poison exposures, now totaling more than 30,000,000 cases, AAPCC has been able to prompt or contribute to regulatory changes to improve product safety.



Objectives of the AAPCC

- To promote the reduction of injury, illness, and death from poisonings through public and professional education and scientific research.
- To promote universal access to certified regional poison centers.

Activities of the AAPCC

- Certification of regional poison centers.
- Certification of poison center personnel.
- Collection, analysis, and publication of national data about poison exposures.
- Interactions with private and governmental agencies whose activities affect poison exposures, poison prevention, and poison centers.



Facts On Poison Exposures

Overview

A poison is any substance that is harmful to your body when ingested (eaten), inhaled (breathed), injected, or absorbed through the skin.

Any substance can be poisonous if enough is taken. This definition does not include adverse reactions to medications taken correctly.

Poisonings are either intentional or unintentional. If the person taking or giving a substance did not mean to cause harm, then it is an unintentional poisoning.



Unintentional poisoning includes the use of drugs or chemicals for recreational purposes in excessive amounts, such as an "overdose." It also includes the excessive use of drugs or chemicals for nonrecreational purposes, such as by a toddler.

Intentional poisoning is the result of a person taking or giving a substance with the intention of causing harm.

Suicide and assault by poisoning fall into this category. When the distinction between intentional and unintentional is unclear, poisonings are usually labeled "undetermined" in intent.

- On average, poison centers handle one poison exposure every 14 seconds.
- Over two million poison exposures were reported to local poison centers in 2000.
- Most poisonings involve everyday household items such as cleaning supplies, medicines, cosmetics and personal care items.



- 89 % of all poison exposures occur in the home.
- 92 % of exposures involve only one poisonous substance.
- 86.7 % of poison exposures are unintentional.
- 75 % of poison exposures involve ingestion of a poisonous substance.

Other causes include breathing in poison gas, getting foreign substances in the eyes or on the skin, and bites and stings.

77 % of all exposures are treated on the site where they occurred, generally the patient's home with phone advice and assistance from local poison control experts.

Children and Poison:

- 53 percent of poison exposures occur in children under the age of six.
- The most common forms of poison exposure for children under the age of six are cosmetics and personal care products (13.3%), cleaning substances (10.7%), analgesics (7.6%) and plants (6.9%).
- Although children under the age of six are the most likely to be exposed to poison, they represent just over two percent of poison fatalities.



Teens and Poison:

- 160,000 cases of poison exposure were reported among teenagers in 2000.
- In children between ages 13 and 19, the majority of poison exposures (55%) involve girls. In children under 13, the reverse is true; over 56 percent of these exposures involve boys.
- 84 percent of reported adolescent deaths from poison exposure were due to intentional poison exposure such as suicide or drug abuse.

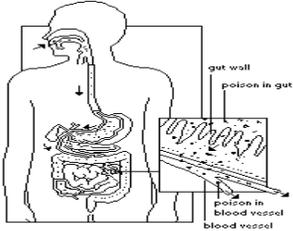


Fig. 1. Poisons that are swallowed can pass from the gut to the blood vessels.

Adults and Poison:

- Over 8,000 poison exposures in 2000 occurred in pregnant women.
- Over 60 percent of all poison fatalities occur in adults ages 20 to 49.
- While adults 60 and over account for 4% of poison exposures, they account for 15.5 % of the fatalities.

What PCCs Provide All of Us

- PCCs provide direct patient health care services to the public and health professionals, and strengthen the services provided by public health entities and health care providers. It is estimated that every dollar spent on PCCs saves at least \$7.00 in healthcare costs.
- All US PCCs provide 24-hour emergency and information hotline services via the National Poison Center Toll-Free Telephone Hotline (1-800-222-1222)
- PCCs, through their health professional staff, provide assessment, triage, management and continued monitoring of more than 2.4 million poison exposures in the U.S. each year at no direct cost to the patient, the practitioner or health care institution.
- Multiple studies have demonstrated that accurate assessment and triage of poisoning exposures by PCCs saves dollars by eliminating or reducing the expense of unnecessary trips to an emergency department.
- Consultation with a PCC can significantly decrease the patient's length of stay in a hospital and decrease hospital cost.
- Real-time PCC data, collected by PCCs nationwide into a national database, triggers the recognition of a variety of public health threats and provides a tracking mechanism for those events.



Arizona Poison and Drug Information Center

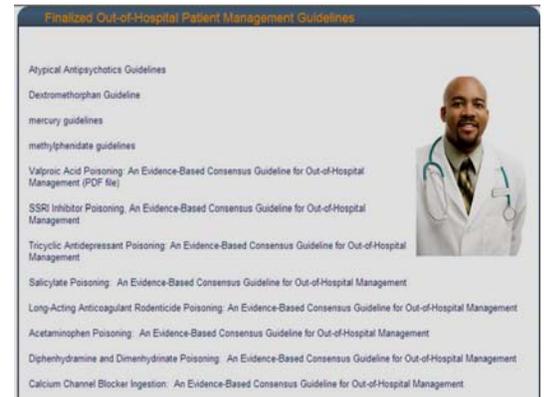


- PCCs use multi-lingual public education to promote poisoning prevention and awareness of the availability of PCCs to the general population, and to take the message of poison prevention to the public and health professionals in a variety of settings.
- PCC services are accessible and available to all communities in over 150 languages and via telecommunications devices for the deaf and hearing impaired (TDD)
- Calls are directly answered by a health professional, often referred to as a "specialist in poison information." After a potential exposure to a poison, this person provides multi-lingual patient assessments, medical care recommendations and follow-up services.

- Consultation with a PCC can significantly decrease the patient's length of stay in a hospital by more effective use of laboratory testing, more efficient use of antidotes and appropriate monitoring practices.
- Patients managed with poison center assistance had on average, shorter hospitalizations (median length of stay of 3.5 days vs. 6.5 days without poison center assistance) resulting in savings of more than \$2,100 per patient in 2005 dollars.
- The annual cost savings attributable to poison center support for inpatient care of poisoned patients is more than 9 times greater than the estimated \$100M total cost of running all American poison centers if all poison centers were fully funded.

PCCs Provide:

- Essential follow-up calls to assess and advise regarding the continuing care for known or suspected poison exposures
- Patient management guidelines to healthcare professionals and healthcare facilities for the care of their poisoned patients
- Public multi-lingual poison prevention education
- 24-hour-a-day, real-time, nationwide data collection on poisoning and adverse event tracking providing epidemiologic surveillance of public health across the nation for governmental agencies
- Emergency information as an integral part of response at the local, state and national levels in response to natural and manmade disasters



NEWS ITEM: AVERAGE EMERGENCY ROOM WAIT NEARS ONE HOUR, C.D.C. SAYS.



Bottom Line:

- Available data shows that more than 80% of PCC callers are managed by the PCCs without the use of hospital services.
- Reduction in poison injury morbidity and mortality occurs across all age, social and economic groups. Likewise, unnecessary transport of poisoned patients by EMS to emergency departments occurs less often, reducing both overall cost and overcrowding, which in turn improves the availability of limited emergency resources for more severe medical emergencies.
- PCCs are staffed 24 hours a day by nurses, pharmacists, physicians, and other highly specialized healthcare professionals.

How Poison Control Centers can help LEPCs / Local Response Officials During a Hazardous Materials Incident

Poison Control Centers have historically been unrecognized in the preparedness and response community as a major player in the role of protecting the health of our population during hazardous materials incidents or terrorist events.

However, PCCs have provided vital health services to the public and health care professionals for over 30 plus years. The PCC's provision of direct 24 hour patient care services to residential callers, health care professionals and institutions adds value to the services provided by many government public health entities, health care providers and commercial insurance carriers.



Which PCC can be used?

There are ten (10) PCC's in Region 6; one (1) each in New Mexico, Oklahoma, Arkansas and Louisiana and a network of six (6) centers in Texas. The PCC's in Region 6 can be contacted to assist the LEPC and its member response / planning stakeholders address public health issues within their respective community, or even in the event of a national disaster.

To contact a PCC, call the toll free national number 1-800-222-1222 from a land line phone system. Or contact the PCC directly through the non-emergency office phone number listed at the end of this document.

Note: Cell phones can be used, however, cell area codes might route a caller to a PCC based on the area code the cell phone or Black Berry device is registered. Regardless, calls can be re-routed to the state in which the event has occurred.

When can PCC's be used?

PCC's are available to receive calls 24 hours a day, 7 days a week; thus, PCC's are available to receive telephone calls during all phases of a disaster. PCC's are accessible to anyone calling from within their state.

PCC's can receive calls from the public, 911, impacted citizens, media, receiving hospitals, private industry, physicians, state/county health departments, environmental agencies, federal agencies, and emergency managers from local, state and federal agencies.



How can the PCC's assist the LEPC and local officials?

PCC's have legally designated authority to address and to provide treatment recommendations to the people exposed to all types of poisons; this includes exposures to hazardous materials. They are available to serve as a vehicle for communicating information to callers during disaster events.



This communication system also provides a broader approach to addressing the general public not impacted by the event and may include concerned citizens, politicians and the media.

LEPC and local officials can utilize the expertise of the PCC's to address human exposures due to any and all hazardous materials emergency events.

In addition, the poison centers have the ability to track calls received and can provide valuable epidemiological data on types of calls received.

What types of incidents would involve a PCC?

PCC's are available to assist local and State agencies by providing a public telephone-based service for any type of incident where hazardous materials may threaten public health.



These incidents might include only localized impacts that are managed by local fire, police, and EMS.

Or even larger events that involve State emergency response programs.

Hazards addressed could be anything from a toxic industrial chemical release resulting from a chemical facility fire, to household hazardous waste such as pesticides, mercury thermometers, or oily residues that might be encountered by residents re-entering flooded neighborhoods caused by natural disasters.

How Can PCC's function within Incident Command Systems?

The Incident Command System (ICS) is the response management structure used by all emergency response organizations, as described in the National Response Framework (NRF).

The ICS establishes positions that accomplish the key functions of incident management, including command, operations, planning, logistics, and finance. PCC's may interact with many of these positions during the course of an incident.

The initial decision to activate a PCC would probably be made by the Incident Commander (IC). The activation of a PCC may be publicly announced by a Public Information Officer (PIO), and/or a Liaison Officer (LNO).

Once activated, a PCC would need information on the nature and extent of potential hazards involved, which could be provided by the Planning Section, and particularly, the Situation Unit.

In turn, the PCC could then offer advice on safety and treatment of potential exposures to the Safety Officer and Operations Section.

If the event generates news media or political interest, it may be necessary to involve a Joint Information Center (JIC) in developing public statements for PCC to use during calls from the public.

What information would a PCC need from emergency response agencies?

PCC's can be used to provide treatment recommendations to callers at home, in a hospital setting or shelters.

Seeking help from a PCC by phone can help alleviate patient surges to local healthcare facilities.

In order to make informative decisions, the agency(s) that activate the PCC should provide the PCC's any data that can assist them to better respond to public inquiries.

The following information might become available through ICS liaisons and may include:

- notification from spill reports
- exact location of spill and/or releases
- amount of material spilled and type
- potential health/environment impacts
- plume maps and weather conditions
- fact sheets
- sensitive populations (children, elderly, child bearing, etc)
- contamination maps/zone of contamination
- site photos
- sensitive issue (terrorism events, national disasters, political, etc)

What information can PCC's provide to incident command staff during and after an incident?

In addition to providing toxicology advice, PCC's generate certain data as a routine course of their duties that can be very useful to incident command staff.

As PCC's begin to respond to calls from the public, they record information on the identities, numbers of callers, location where exposures may have occurred, and symptoms observed/reported.

They also track the progress of persons they refer for medical treatment through the treatment process.

This information can assist incident management staff in identifying potentially exposed populations and areas of contamination, which are necessary for developing effective response and mitigation strategies.



Regional Response Team for Region 6 Teams up with Poison Centers

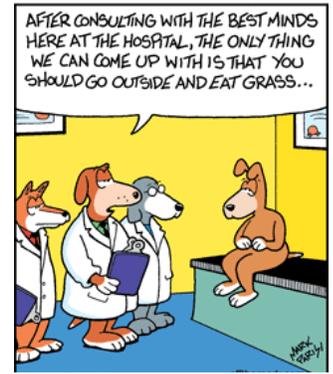
The Region 6 Regional Response Team (RRT) has partnered with Poison Centers during responses to hazardous materials incidents in Region 6. As one of 13 RRTs in the country, RRTs are responsible for preparedness planning and training to ensure effective response to the release of hazardous substances.

The Region 6 RRT has developed guidance on the utilization of Poison Centers with protocols so that environmental response agencies can quickly and efficiently access the expertise, resources and services provided by Poison Centers in the event of chemical disasters.

An example of EPA's past interface with PCCs includes a chlorine spill resulting from a train derailment in Macdona, just outside of San Antonio, in 2004.

The EPA, working with ATSDR, alerted the network of PCCs in Texas to the spill and called on them to triage calls pertaining to chlorine concerns from the public.

- 15 calls came from residences
- 1 call from a workplace
- 8 calls from a health care facility
- 2 calls from an "other" location



Region 6 Poison Control Centers

Arkansas Poison and Drug Information Center

College of Pharmacy, University of Arkansas for Medical Sciences
4301 W. Markham, #522-2
Little Rock, AR 72205
501-686-5532
FosterHowellR@uams.edu

New Mexico Poison and Drug Information Center

MSC09 5080
1 University of New Mexico
Albuquerque, NM 87131-0001
505 272-4261
Website: <http://hsc.unm.edu/pharmacy/poison>

Central Texas Poison Center

Scott and White Memorial Hospital
2401 South 31st Street
Temple, TX 76508
254-724-2005
dborys@swmail.sw.org
Website: www.PoisonControl.org

South Texas Poison Center

The Univ of Texas Health Science Ctr -- Mail Code 7849
7703 Floyd Curl Drive
San Antonio, TX 78229-3900
210-590-9010
stpc@uthscsa.edu
Website: <http://poison.uthscsa.edu/>

Texas Panhandle Poison Center

1501 S. Coulter
Amarillo, TX 79106
806-354-1630
website: www.poisoncontrol.org

Louisiana Poison Center

LSUHSC - Shreveport
Dept. of Emergency Medicine, Section of Clinical Toxicology
1455 Wilkinson Street
Shreveport, LA 71130
318-813-3317
mryan@lsuhsc.edu
Website: www.Lapcc.org

Oklahoma Poison Center

Oklahoma Univ Health Science Center
940 N.E. 13th Street, Room 3N3510
Oklahoma City, OK 73104
405-271-5062
lee-mcgoodwin@ouhsc.edu
Website: www.Oklahomapoison.org

North Texas Poison Center

Parkland Health & Hospital System
5201 Harry Hines Blvd.
Dallas, TX 75235
817-372-4348
jgarri@parknet.pmh.org
Website: www.poisoncontrol.org

Southeast Texas Poison Center

The University of Texas Medical Branch
3.112 Trauma Building
Galveston, TX 77555-1175
409-766-4403
jdthomps@utmb.edu
Website: www.poisoncontrol.org

West Texas Regional Poison Center

Thomason Hospital
4815 Alameda Avenue
El Paso, TX 79905
915-351-6866
Email: poisoncenter@thomasoncares.org
Website: www.poisoncenter.org

Region 6 Emergency Notification Numbers

Arkansas Dept. of Emergency Management	800-322-4012
Louisiana State Police	877-925-6595
New Mexico State Police	505-827-9126
Oklahoma Dept. of Environmental Quality	800-522-0206
Texas Environmental Hotline	800-832-8224

National Response Center	800-424-8802
EPA Region 6	866-372-7745
CHEMTREC	800-424-9300